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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/687,107

10/16/2003

Lewis B. Aronson

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EXAMINER

TRAN, DZUNG D

ART UNIT

PAPER NUMBER

2613

MAIL DATE

DELIVERY MODE

05/29/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/687,107

Applicant(s)

ARONSON ET AL.

Examiner

Dzung D. Tran

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2613

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period **will** apply and **will** expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply **will**, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 February 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,4-25 and 28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,4-12,25 and 28 is/are allowed.
- 6) ☒ Claim(s) 13-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Specification***

#### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 13-17 and 19-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Prior Art, Figure 1 or Auracher et al. U.S. Patent no. 6,781,727

Regarding claim 13, Prior Art, Figure 1 or Auracher discloses a transceiver for use in transceiving optical signals, the transceiver comprising:

a driver circuit (i.e., laser driver 12 of Prior Art , Figure 1 or the driver circuit that connect to port D of Figure 1B of Auracher) adapted to deliver a signal to an optical assembly i.e., laser 16 of Prior Art , Figure 1 or LD of Figure 1B of Auracher) along a first transmission line (i.e., line 20b of Prior Art , Figure 1 or line that connect port D\* to the LD of Figure 1B of Auracher) said first transmission line comprising a first end electrically connected to said driver circuit and a second end electrically connected to said optically assembly;

a current source (i.e., the current source that connected to second line in series with resistor 24 of Prior Art , Figure 1 or the current source that connected to second

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line in series with L\* of Figure 1B of Auracher) in communication with said optical assembly and adapted to provided a bias current to said optical assembly; and

a second transmission line (i.e., line that in series with resistor 24 of Prior Art , Figure 1 or line in series with L\* of Figure 1B of Auracher) electrically connecting said current source to said optical assembly, said second transmission line being connected to said second end of said first transmission line;

a voltage source (i.e., the voltage source 14 of Prior Art , Figure 1 or the voltage source that connected to fourth transmission line in series with L of Figure 1B of Auracher);

a third transmission line comprising a first end electrically connected to said driver circuit and a second end electrically connected to said optically assembly (i.e., line 20a of Prior Art , Figure 1 or line that connect port D to the LD of Figure 1B of Figure 1B of Auracher);

a fourth transmission line (i.e., i.e., line that in series with resistor 22 of Prior Art , Figure 1 or line in series with L of Figure 1B of Auracher) electrically connecting said voltage source to said optical assembly, said fourth transmission line being connected to said third transmission line;

Figure 1 of Prior Art, or Figure 1B of Auracher does not specifically disclose a function of the voltage source configured such that a current output associated with the voltage source is responsive to regulation by the current source. However, the circuit of Figure 1 of Prior Art, or Figure 1B of Auracher is constructed same as the circuit of Figure 4 of the present invention. Thus, it would have been obvious to an artisan at

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the time of the invention was made that if the voltage source in the circuit of Figure 4 of the present invention able to configured such that a current output associated with the voltage source is responsive to regulation by the current source. The voltage source in the circuit of Figure 1 of Prior Art, or Figure 1B of Auracher would have been able to perform the same function.

Regarding claim 14, Auracher discloses in Figure 1b, wherein said driver circuit is a laser driver circuit (i.e., LD).

Regarding claims 15 and 16, Auracher discloses wherein said signal is delivered to said optical assembly at a rate of at least 10 Gigabits/second or at a rate of less than 10 Gigabits/second (col. 7, lines 60-62).

Regarding claim 17, Auracher discloses wherein said voltage source is a direct current source (col. 6, lines 9-12).

Regarding claim 19, Auracher discloses in Figure 1b, wherein said at least one first transmission line further comprises a matching impedance  $R^*1$ .

Regarding claim 20, Auracher discloses in Figure 1b, wherein said at least one second transmission line is electrically connected to said at least one first transmission line between said matching impedance  $R^*1$  and said optical assembly LD.

Regarding claim 21, Auracher discloses said at least one matching impedance is between 5 Ohm and 25 Ohm (col. 7, lines 7-37).

Regarding claim 22, Auracher discloses in Figure 1b, wherein said current source (e.g., the source that provide bias current  $I_{bias}$ ) generates a bias current, said bias current flowing to said optical assembly passing through matching impedance

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R\*2. However, it would have been obvious to an ordinary skill in the art that the matching impedance R\*2 can be eliminated if the circuit designer does not want to improve the signal properties at the optical assembly end.

Regarding claim 23, Auracher discloses in Figure 1b, wherein said optical assembly comprises a laser diode LD.

Regarding claim 24, Auracher discloses wherein said second transmission line has a load of between 5 Ohm and 25 Ohm (col. 7, lines 7-37).

3. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Prior Art, Figure 1 or Auracher et al. U.S. Patent no. 6,781,727 in view of Wang et al. US Patent no. 6,863,453.

Regarding claim 18, Prior Art, Figure 1 or Auracher does not specifically disclose a flexible member that includes the first and second transmission lines.

Wang discloses in Figure 1, an optical transceiver module comprises a flexible member 150 (col. 6, lines 37-45).

At the time of the invention was made, it would have been obvious to an artisan to include the flexible member taught by Wan in the optical transceiver module of Auracher. One of ordinary skill in the art would have been motivated to do that in order to reduces a disturbance in electromagnetic field, making it possible to improve the transmission characteristic of a high frequency signal.

Furthermore, to include a flexible member in the apparatus is not patentably significant since it relates to the circuit design which is not ordinarily a matter of

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invention. Therefore, it would have been obvious to an artisan at the time of the invention was made to include the flexible member in the apparatus of Auracher. One of ordinary skill in the art would have been motivated to do that in order to reduces a disturbance in electromagnetic field, making it possible to improve the transmission characteristic of a high frequency signal.

4. Claims 1, 4-12, 25 and 28 are allowed.

### ***Response to Arguments***

5. Applicant's arguments with respect to new claims 1-12 and 25-27 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dzung Tran whose telephone number is (571) 272-3025.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, Jason Chan, can be reached on (571) 272-3022.

The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Dzung Tran

05/21/2008

/Dzung D Tran/

Primary Examiner, Art Unit 2613